

CLAIMS

1. A navigation system for use in a mobile object, comprising:

5 a transceiver unit for transmitting a signal for demanding a detection of a navigation path, which is a short-cut path or an optimum path from a departure point to a destination, to a path detecting server via a wireless network and then receiving path data which represents the
10 navigation path from the path detecting server via the wireless network;

a display unit for outputting the navigation path or a revised navigation path;

15 an input unit for inputting data on the departure point and the destination; and

an ECU for transferring the data on the departure point and the destination from the input unit to the transceiver unit, transferring the path data from the transceiver unit to the display unit, precalculating
20 deviation-expected path data which represent deviation-expected paths in the course of driving along the navigation path, and selecting revised path data which represent the revised navigation path, among the precalculated deviation-expected path data in case a present position of the mobile
25 object deviates from the navigation path to thereby provide the revised navigation path to the display unit.

2. The system of claim 1, further comprising a navigation
30 sensor unit for detecting the present position of the mobile object.

3. The system of claim 2, wherein the display unit includes an audio processing unit for outputting the path data or the revised path data in the form of an audio signal
35 and/or an image processing unit for outputting the path data

or the revised path data in the form of an image signal.

4. The system of claim 3, wherein the ECU selects the revised path data among the deviation-expected path data by
5 inspecting which of the deviation-expected paths includes the present position.

5. The system of claim 1, further comprising a memory for storing the path data and the deviation-expected path data
10 which are transmitted from the ECU and transmitting the stored path data and the stored deviation-expected path data in case the ECU requires for the stored path data and the stored deviation-expected path data to display the stored path data and the stored deviation-expected path data
15 through the display unit.

6. The system of claim 1, wherein the deviation-expected paths are precalculated from a plurality of deviation points to the destination, the deviation points being arbitrary
20 places where the mobile object begins to deviate from the navigation path.

7. A method for navigating a mobile object traveling from a departure point to a destination, comprising the steps of:
25 (a) transmitting a signal for demanding a detection of a navigation path, which is a short-cut path or an optimum path from the departure point to the destination, to a path detecting server via a wireless network;
(b) receiving path data which represent the navigation
30 path from the path detecting server via the wireless network;
(c) displaying the navigation path in response to the received path data;
(d) precalculating deviation-expected path data which
35 represent deviation-expected paths;

(e) selecting revised path data, which represent a revised navigation path, among the precalculated deviation-expected path data in case a present position of the mobile object deviates from the navigation path; and

5 (f) displaying the revised navigation path in response to the revised path data.

8. The method of claim 7, further comprising a step of detecting the present position of the mobile object.

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9. The method of claim 8, wherein the navigation path and the revised navigation path are outputted either in the form of an audio signal or in the form of an image signal at steps (c) and (f).

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10. The method of claim 9, wherein the revised path data are selected among the deviation-expected path data by inspecting which of the deviation-expected paths includes the present position at step (e).

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11. The method of claim 7, further comprising the steps of storing the path data or the deviation-expected path data in a memory after the path data or the deviation-expected path data are received and retrieving the stored path data or the stored deviation-expected path data from the memory while
25 displaying the navigation path or the revised navigation path.

12. The method of claim 7, wherein the deviation-expected paths are precalculated from a plurality of deviation points to the destination at the step (d), the deviation points being arbitrary places where the mobile object begins to deviate from the navigation path.

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